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AF/3723

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant: Van Der Toorn Examiner: Wilson, L.  
Application No.: 09/882,081 Group Art Unit: 3723  
Filed: June 15, 2001 Docket No.: NL 000327  
(VLSI.430PA)  
Title: Holder for a Substrate Cassette and Device Provided with Such a Holder

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence and the papers, as described hereinabove, are being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Board of Patent Appeals and Interferences, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450, on May 26, 2005.

By:

*Jennifer L. Larson*  
Jennifer L. Larson

**APPEAL BRIEF**

Board of Patent Appeals and Interferences  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is an Appeal Brief submitted pursuant to 37 C.F.R. § 41.37 for the above-referenced patent application. Please charge Deposit Account No. 50-0996 (VLSI.430PA) in the amount of \$500.00 for this brief in support of appeal as indicated in 37 C.F.R.

§ 41.20(b)(2). If necessary, authority is given to charge/credit deposit account 50-0996 (VLSI.430PA) any additional fees/overages in support of this filing.

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## **I. Real Party in Interest**

The real party in interest is the assignee, Koninklijke Philips Electronics, N.V.

## **II. Related Appeals and Interferences**

While Appellant is aware of other pending applications owned by the above-identified assignee, Appellant is unaware of any related appeals, interferences or judicial proceedings that would have a bearing on the Board's decision in the instant appeal.

## **III. Status of Claims**

Claims 1-10 are presented for appeal because each of the appealed claims 1-10 has been rejected, at least as indicated on the cover sheet of the final Office Action mailed on January 5, 2005. As Appellant discusses in more detail below, the final Office Action does not present any statement of rejection of claim 6 (thus, the status of claim 6 is unclear). The pending claims under appeal, as presently amended, may be found in the attached Appendix of Appealed Claims.

## **IV. Status of Amendments**

No amendments were filed subsequent to the final Office Action dated January 5, 2005.

## **V. Summary of Invention**

In accordance with independent claim 1, one example embodiment of the present invention is directed to a holder for a cassette that stores semiconductor material substrates such that the cassette is "situated and properly aligned" in the holder (page 1, line 27). *See, e.g.*, Figs. 1 and 3 and the corresponding discussion at page 4, line 6 – page 5, line 22. The holder (*e.g.*, 10) includes a base plate (*e.g.*, 3) and a guide member (*e.g.*, 4A and 4B of Fig. 3). The guide member is located over and supported by the base plate and has cassette-directed guides (*e.g.*, 5A-F) for aligning the cassette along substantially perpendicular axes over the base plate. Each cassette-directed guide has a respective end portion protruding to secure a cassette with respect to the base plate upon introduction to the holder. The respective end portion of each guide has a first side (*e.g.*, 6) of the guide member which is

facing away from the base plate and a second side (*e.g.*, 7) of the guide member facing toward the base plate. The first and second sides are tapered toward one another in a direction toward the protruding end portion so as to form the respective protruding end portion and are arranged at a predetermined distance from the cassette so as to accurately hold the cassette in alignment on the base plate within the predetermined distance of the guides from the cassette. By directing the sides toward the protruding end portion as such, proper alignment is consistently achieved.

As required by 37 C.F.R. § 41.37(c)(1)(v), a concise explanation of the subject matter defined in the independent claim involved in the appeal is provided herein. Appellant notes that representative subject matter is identified for this claim; however, the abundance of supporting subject matter in the application prohibits identifying all textual and diagrammatic references to each claimed recitation. Appellant thus submits that other application subject matter, which supports the claims but is not specifically identified above, may be found elsewhere in the application. Appellant further notes that this summary does not provide an exhaustive or exclusive view of the present subject matter, and Appellant refers to the appended claims and their legal equivalents for a complete statement of the invention.

## **VI. Grounds of Rejection**

- A. Claim 6 is rejected without a statement of rejection identifying any grounds.**
- B. Claims 1-2, 7 and 10 are rejected under 35 U.S.C. § 103(a) over Snell (U.S. Patent No. 6,152,435).**
- C. Claims 1-2, 4 and 7-9 are rejected under 35 U.S.C. § 103(a) over Engibarov (U.S. Patent No. 5,060,920).**
- D. Claim 3 is rejected under 35 U.S.C. § 103(a) over Engibarov and further in view of McConkey (U.S. Patent No. 5,074,536).**
- E. Claim 5 is rejected under 35 U.S.C. § 103(a) over Engibarov and further in view of Gaither (U.S. Patent No. 3,626,600).**
- F. Claim 9 is rejected under 35 U.S.C. § 103(a) over Engibarov and further in view of Takisawa *et al.* (U.S. Patent No. 6,383,890).**

## **VII. Argument**

With respect to each of the grounds of rejection, the Examiner fails to acknowledge certain limitations of the claimed invention thereby failing to view and address the claimed invention “as a whole” as required by 35 U.S.C. § 103(a) and MPEP § 2141. The claims are specifically directed to a holder for a cassette for storing semiconductor material substrates, where the holder has “sides tapered toward one another in a direction toward the protruding end portion so as to form the respective protruding end portion.” Claim 1, for example, includes further limitations directed to: cassette-directed guides for aligning the cassette, each cassette-directed guide having a respective end portion protruding to secure a cassette, and the cassette-directed guides arranged at a predetermined distance from the cassette so as to accurately hold the cassette in alignment on the base plate within the predetermined distance of the guides from the cassette. The Examiner ignores such claim limitations and implicitly acknowledges that the cited references do not teach the above structural aspects, as claimed, or aligning any kind of semiconductor-storage cassette on a base plate. According to MPEP § 2141.02, ignoring these limitations is prohibited because the “subject matter as a whole” should always be considered in determining the obviousness of an invention under 35 U.S.C. § 103. Appellant accordingly submits that the rejections are improper and requests that each of the rejections be reversed.

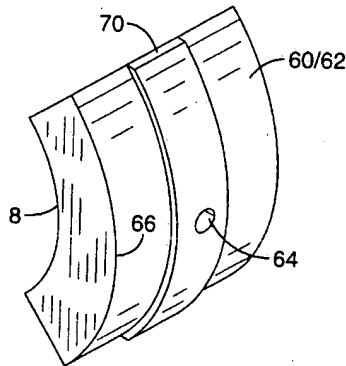
### **A. The rejection of claim 6 is improper because there is no support.**

Appellant submits that claim 6 should be allowed as claim 6 has not been rejected. Appellant has previously raised this issue with the Examiner (Office Action Response dated February 3, 2005 at page 5, lines 1-5), that there is no statement of rejection that includes claim 6. In accordance with MPEP § 707.07(d), “where a claim is refused for any reason relating to the merits thereof it should be ‘rejected’ and the ground of rejection fully and clearly stated, and the word ‘reject’ must be used. The examiner should designate the *statutory basis* for any ground of rejection by express reference to a section of 35 U.S.C. in the opening sentence of each ground of rejection.” Moreover, with no grounds supporting the rejection of claim 6, the Examiner has not presented a *prima facie* case for maintaining any rejection. The Examiner’s decision to exclude claim 6 from any statement of rejection

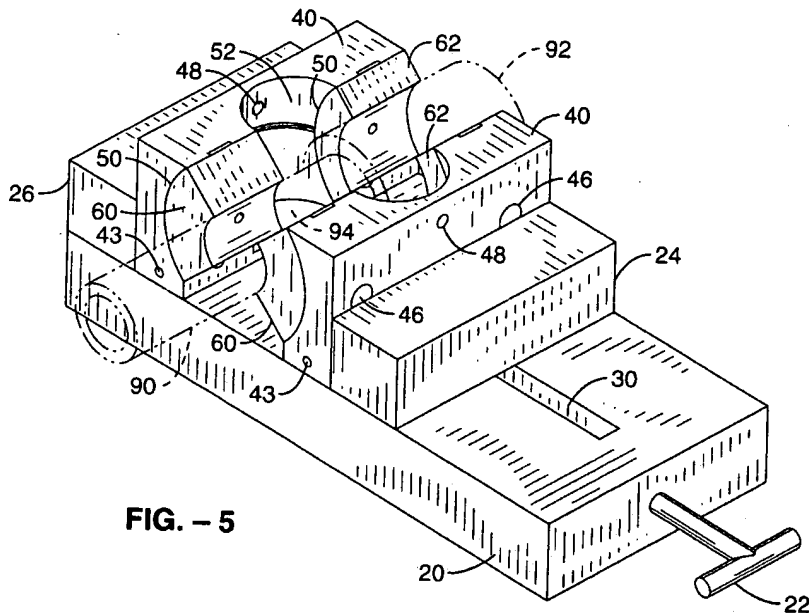
means that claim 6 must be allowable. Thus, Appellant requests that any alleged rejection of claim 6 be reversed and claim 6 allowed.

**B. The rejection of claims 1-2, 7 and 10 is improper because the requirements for a *prima facie* Section 103(a) rejection have not been established and they are not supported by the evidence of record.**

The Examiner fails to allege that, or identify where, the '435 reference teaches a protruding end portion, as claimed. Based on Appellant's review of the '435 reference, there appears to be no possible interpretation of the '435 teachings that could correspond to the claimed invention. For example, the Examiner appears to be basing the rejection on the '435 embodiment of Fig. 3B (also shown in Fig. 5), as reproduced below.



**FIG. - 3B**



**FIG. - 5**

As shown above, this embodiment is a vice clamp that has nothing to do with a holder for semiconductor cassettes, as claimed. Moreover, the claimed invention requires, “the first and second sides tapered toward one another in a direction toward the protruding end portion so as to form the respective protruding end portion.” Assuming that the Examiner is relying on the apparently tapered edges of the collet pad shown in Fig. 3B, Appellant notes that the edges do not taper to form anything and instead end with a gap and an indentation between them. The Examiner fails to show any correspondence to the claimed protruding end portions in the ‘435 reference and fails to even acknowledge that for various embodiments the protruding end portion can play an important role in providing consistent alignment for semiconductor substrate cassettes. Without an assertion or presentation of correspondence, the Examiner fails to present a *prima facie* case of rejection.

Moreover, the Examiner fails to assert or present correspondence to several dependent claim limitations.

#### Claim 2

The Examiner fails to identify how the ‘435 vice clamp is mirror symmetrical with respect to the side facing the base plate and the opposite side facing away from the base plate. At least hole 48 of Fig. 1A would appear to destroy any such symmetry.

#### Claim 7

The Examiner fails to identify how the ‘435 vice clamp guide member “adjoins a single side of the cassette,” as claimed.

#### Claim 10

The Examiner fails to identify any detection means in the ‘435 vice clamp that signals that the cassette is present in the holder.

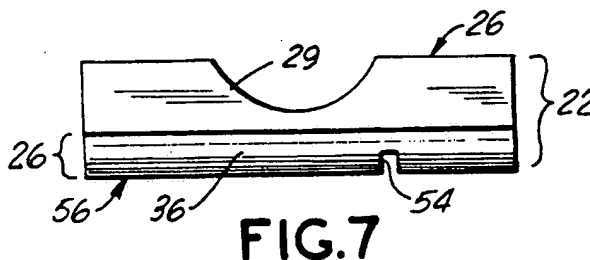
Without a presentation of correspondence to each of the claimed limitations, the Section 103(a) rejection of claims 1, 2, 7 and 10 is improper, and Appellant accordingly requests that the rejection be reversed.

Further, the Examiner fails to present any evidence that the skilled artisan would use the ‘435 teachings for holding a semiconductor cassette. More specifically, the Examiner fails to present any evidence from the reference that would indicate that the ‘435 vice clamp would be used to hold cassettes for storing sensitive semiconductor material. As indicated in the Office Action at pages 2 and 3, the Examiner admits that the ‘435 reference fails to teach

or suggest using the vice clamp to hold a semiconductor storage cassette and does not cite any other evidence in support of this argument of motivation. The Examiner's only rationale for his opinion that "a worker can select a workpiece[s] on the basis of its suitability for the intended holder is being used for" is the opinion itself. In order to present a proper Section 103(a) rejection, the Examiner must present evidence of motivation or suggestion from the cited reference to modify the cited reference. *See* MPEP § 2143. Without this requisite evidence, the rejection is improper and should be reversed.

**C. The rejection of claims 1-2, 4 and 7-9 is improper because the requirements for a *prima facie* Section 103(a) rejection have not been established and they are not supported by the evidence of record.**

The Examiner fails to allege that, or identify where, the '920 reference teaches "the first and second sides tapered toward one another in a direction toward the protruding end portion so as to form the respective protruding end portion." (*e.g.*, claim 1) As illustrated below, the cited portion of the '920 reference shows half circle 29 in Fig. 7 cut out of an alleged guide member.



As can be seen, the '920 reference fails to teach: 1) a protruding end portion, 2) sides tapered toward one another to form a protruding end portion, and 3) tapered sides of the guide member facing toward and away from the base plate. The half circle 29 faces perpendicular to the alleged base plate of the '920 reference. Fig. 9 also fails to correspond to these limitations as cut-outs 66 and 68 merely replace the single cut-out 29 of Fig. 7. Without even an assertion of correspondence, the Examiner fails to present a *prima facie* case of rejection and the Section 103(a) rejection cannot be maintained. Appellant accordingly submits that the rejection should be reversed.

Moreover, the Examiner fails to identify any evidence that the skilled artisan would use the '920 teachings for holding a semiconductor cassette. More specifically, the Examiner fails to present any evidence from the '920 reference that would indicate that the jaw assembly would be used to hold cassettes for storing sensitive semiconductor material. As indicated in the Office Action at pages 2 and 3, the Examiner admits that the reference fails to teach or suggest using the '920 jaw assembly to hold a semiconductor storage cassette and does not cite any other evidence in support of this argument of motivation. The Examiner's only rationale for his opinion that "a worker can select a workpieces on the basis of its suitability for the intended holder is being used for" is the opinion itself. In order to present a proper Section 103(a) rejection, the Examiner must present evidence of motivation or suggestion to modify the cited references. *See* MPEP § 2143. Without this requisite evidence, the rejection is improper and should be reversed.

**D. The rejection of dependent claim 3 is improper because the Examiner fails to present correspondence between the cited combination of references and the claimed invention.**

The rejection of dependent claim 3 is improper for the reasons discussed above in connection with independent claim 1. The rejection of claim 3 relies upon the '920 reference which fails to support a *prima facie* case of rejection as discussed in Section C, *e.g.*, because the '920 reference fails to teach the claimed tapering of a side facing toward a base plate. "If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious." MPEP § 2143.03; *citing In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). For example, modifying the '920 shape as asserted would still fail to correspond to the claimed invention. Moreover, the cited '536 teachings are not configurable with the '920 teachings. Appellant fails to recognize how the narrowed mandrel of the '536 reference would be used to modify the recessed portions of the '920 jaw (22 or 64). The Examiner has not presented any evidence from the cited references in support of the proposed modification. Thus, the rejection of dependent claim 3 under 35 U.S.C. § 103 should be reversed.



**E. The rejection of claim 5 is improper because the Examiner fails to present correspondence between the cited combination of references and the claimed invention.**

The Examiner fails to assert, and neither the '920 nor the '600 reference teaches, limitations directed to a guide member detachably secured to the base plate by means of bolts and nuts, as claimed. Moreover, as discussed above in Section C, the '920 reference fails to support a *prima facie* Section 103(a) rejection. "If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious." MPEP § 2143.03; *citing In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Without a presentation of correspondence to each of the claimed limitations, the Section 103(a) rejection cannot be maintained. Appellant accordingly requests that the rejection be withdrawn.

**F. The rejection of claim 9 is improper because the Examiner fails to present correspondence between the cited combination of references and the claimed invention.**

The Examiner fails to assert, and neither the '920 nor the '890 reference teaches, limitations directed to a device for the manufacture of semiconductor products in semiconductor substrates including a holder, as claimed. Moreover, as discussed above in Section C, the '920 reference fails to support a *prima facie* Section 103(a) rejection. "If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious." MPEP § 2143.03; *citing In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Without a presentation of correspondence to each of the claimed limitations, the Section 103(a) rejection cannot be maintained. Appellant accordingly requests that the rejection be withdrawn.

### III. Conclusion

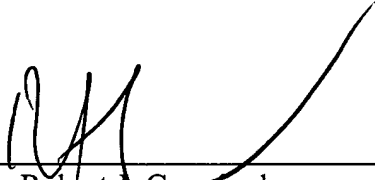
In view of the above, Appellant submits that the rejections are improper, the claimed invention is patentable, and that the rejections of claims 1-10 should be reversed. Appellant respectfully requests reversal of the rejections as applied to the appealed claims and allowance of the entire application.

Authority to charge the undersigned's deposit account was provided on the first page of this brief.

Should there be any issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Mr. Peter Zawilski, of Philips Corporation at (408) 474-9063.

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## APPENDIX OF APPEALED CLAIMS

1. A holder for a cassette for storing semiconductor material substrates, the holder comprising:

a base plate; and

a guide member located over and supported by the base plate, the guide member having cassette-directed guides for aligning the cassette along substantially perpendicular axes over the base plate, each cassette-directed guide having a respective end portion protruding to secure a cassette with respect to the base plate upon introduction to the holder, wherein the respective end portion of each guide has a first side of the guide member which is facing away from the base plate and a second side of the guide member facing toward the base plate, the first and second sides tapered toward one another in a direction toward the protruding end portion so as to form the respective protruding end portion, and arranged at a predetermined distance from the cassette so as to accurately hold the cassette in alignment on the base plate within the predetermined distance of the guides from the cassette.

2. The holder as claimed in claim 1, wherein the second side facing the base plate is mirror symmetrical with respect to the first side facing away from the base plate.

3. The holder as claimed in claim 1, wherein, viewed in cross-section, the guides demonstrate a trapezoidal, inwardly directed profile.

4. The holder as claimed in claim 1, wherein the guide member includes at least three cassette-directed guides wherein two of the guides oppose each other from opposite ends of the guide member and the third is located along the length of the guide member.

5. The holder as claimed in claim 4, wherein the guide member is detachably secured to the base plate by means of bolts and nuts and wherein the base plate is graduated at a location of two mutually perpendicular outer sides of the guide member.

6. The holder as claimed in claim 5, wherein the base plate, the bolts and the nuts are made of aluminum.
7. The holder as claimed in claim 1, further including a second guide member constructed and arranged opposite and identical to the first guide member to mirror the first guide member.
8. The holder as claimed in claim 1, wherein the guide member is made from a material having a low coefficient of friction.
9. A device for the manufacture of semiconductor products in semiconductor substrates, provided with the holder as claimed in claim 1.
10. A device including the holder as claimed in claim 1, wherein the device is provided with a detector, which signals that the cassette for the substrates is present in the holder.

## **EVIDENCE APPENDIX**

None.

## **RELATED PROCEEDINGS APPENDIX**

None.